

ABSTRACT OF THE DISCLOSURE

A fiber optic wavelength switch that includes a front-end unit having optical ports for receiving and transmitting optical signals; a wavelength dispersion element (e.g., diffraction grating, prism, etc.) for defining a dispersion plane; a light redirecting element (e.g., spherical reflector) associated with the wavelength dispersion element; and an actuation array (e.g., MEMS) operative with the light redirecting element for tilting an optical signal substantially perpendicular to the dispersion plane defined by the wavelength dispersion element. The wavelength switch can be implemented as a one input/output port and several add/drop ports type device, which can add/drop wavelengths from/to the in/out port. The front-end unit having a fiber array coupled to a micro-lens array with optical signals from the micro-lens being directed by a further lens.

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